

WHAT IS CLAIMED IS:

SUB 61

1. A method for making a photomask, wherein a first on-mask intended pattern for forming a first on-wafer intended pattern and an on-mask alignment mark are formed on a reference-layer-defining photomask, the on-mask alignment mark having a size equal to that of a second on-wafer intended pattern to be defined in a layer-to-be-aligned.

2. The method of Claim 1, wherein the size of the on-mask alignment mark is equal to the smallest size of the second on-wafer intended pattern to be defined in the layer-to-be-aligned.

3. The method of Claim 1, wherein a second on-mask alignment mark having a size equal to that of the first on-mask intended pattern is also formed on the reference-layer-defining photomask.

4. A method for making a photomask, wherein a first on-mask alignment accuracy measuring mark that has a size equal to that of a first on-mask intended pattern is formed on a reference-layer-defining photomask, and a second on-mask alignment accuracy measuring mark that has a size equal to that of a second on-mask intended pattern is formed on a layer-to-be-aligned-defining photomask.

5. The method of Claim 4, wherein the size of the second on-mask alignment accuracy measuring mark is equal to the smallest size of the second on-wafer intended pattern.

6. An alignment method comprising the steps of:

a) preparing a reference-layer-defining photomask on which a first on-mask intended pattern and an on-mask alignment mark have been formed, the first on-mask intended pattern being used for defining a first on-wafer intended pattern in a reference layer, the on-mask alignment mark having a size equal to that of a second on-wafer intended pattern to be defined in a layer-to-be-aligned;

b) preparing a layer-to-be-aligned-defining photomask that includes at least a second on-mask intended pattern for defining the second on-wafer intended pattern in the layer-to-be-aligned;

c) forming the first on-wafer intended pattern and an on-wafer alignment mark on a wafer by using the reference-layer-defining photomask, the on-wafer alignment mark being formed by transferring the on-mask alignment mark; and

d) aligning the layer-to-be-aligned-defining photomask by reference to the position of the on-wafer alignment mark for the reference-layer.

SUB B1

7. The method of Claim 6, wherein in the step a), a second on-mask alignment mark that has a size equal to that of the first on-mask intended pattern is formed on the reference-layer-defining photomask,

wherein in the step c), a second on-wafer alignment mark is formed on the wafer by transferring the second on-mask alignment mark, and

wherein in the step d), the position of the layer-to-be-aligned-defining photomask is corrected by reference to a positional relationship between the on-wafer alignment mark and the second on-wafer alignment mark.

8. An alignment method comprising the steps of:

a) preparing a reference-layer-defining photomask on which a first on-mask alignment accuracy measuring mark and an on-mask alignment mark have been formed, the first on-mask alignment accuracy measuring mark having a size equal to that of a first on-mask intended pattern for a reference layer, the on-mask alignment mark having a size equal to that of a second on-wafer intended pattern to be defined in a layer-to-be-aligned;

b) preparing a layer-to-be-aligned-defining photomask that includes at least a second on-mask intended pattern for defining the second on-wafer intended pattern in the layer-to-be-aligned;

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[illegible]